a.) Amendments to Specification

Replace the paragraph beginning at page 2, paragraph [07], in the specification as originally filed, with the following rewritten paragraph:

– The invention has the advantage that a computer system is provided which determines the calculation of statistical signatures of a recorded multi-dimensional image. These signatures result from projection of the grayscale values based on the inherent axes of the image (X, Y, Z, lambda). In addition, a means for calculating statistical signature parameters is provided. It is especially advantageous that several positioning motors and/or actuators are provided on or in the microscope system, and that at least one software module is implemented that supplies to the positioning motors or actuators control signals which can be ascertained from the signature parameters. It is thereby possible to guarantee that, for example, a specimen element that is to be observed is always in the optimum image window regardless of its motion. A corresponding displacement of the XYZ stage is then performed for this purpose, the positioning signals being derived from the statistical signatures and the statistical parameters. It is likewise conceivable for the wavelength of the fluorescent light proceeding from an element of the specimen to change. A suitable displacement at the SP (spectral photometer) module of the microscope system would be necessary for this purpose. –

Replace the paragraph beginning at page 3, paragraph [10], in the specification as originally filed, with the following rewritten paragraph:

--FIG. 1 schematically shows an exemplary embodiment of a confocal scanning microscope 100. This is not intended, however, to be construed as a limitation of the invention. Illuminating light beam 3 coming from at least one illumination system 1 is-